

Unit 1: Exploring the Local Landscape

Standard 1: Students describe the physical and human geography and use maps, tables, graphs, photographs, and charts to organize information about people, places and environment in a spatial context by:

1. identifying geographical features found in their local region (e.g., deserts, mountains, valleys, hills, coastal areas, oceans, lakes)
2. tracing the ways in which people have used the resources of the local region and modified the physical environment (e.g., a dam constructed upstream changed a river or coastline)

Sample Topic for Standard 1:

Identify geographical features of the local region and ways in which people have modified the physical environment

Suggested Time:

3 weeks

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Description of the Unit:

Students conduct a soil analysis to determine the different types of soil that are the foundation of all landforms. Through a shared reading of a literature selection *The Armadillo From Amarillo*, students identify various geographical features, and then create a class museum of geographical features. Students examine maps to determine how the physical environment of the local region has been modified. A 3-dimensional terrain map is made reflecting the geographical and human features of the local region.

***Note: The content in this unit is county-specific. An * in the text indicates areas where resources from your county need to be inserted, including:**

- **Teacher Background**
- **Geographic Map of the local region (Appendices 4 and 5)**
- **U.S. Geological Survey map (Appendix 8)**
- **Our Community Through Time page – center map portion (Appendix 9a)**
- **Student Reader (Appendix 11)**

Teacher Background: (Note: *Insert background materials appropriate to your county.)

The physical geography of the Los Angeles area is made up of six natural regions: mountains, valleys, bays, rivers, a basin and a peninsula. When Cabrillo dropped anchor in the Bay of San Pedro in 1542, the entire inland region, from the ocean shore to the Sierra Nevada was completely virgin territory, never seen before by Europeans. It was settled by small tribes of Native American Indians. When the Spanish made their first contact with the area, they saw a fairly level plain extending some miles back from the seacoast, with high mountains in the background. Most of the land near the ocean was semi-arid, except in the first months of the year following seasonal rains. The fertile areas were located along the banks of two main streams, now known as the Los Angeles and San Gabriel rivers. These shallow channels, almost completely dry during most of the year, sometimes became raging torrents during the rainy season. The main riverbeds shifted with each flood resulting in the creation of stagnant marshes in some areas, with dry creeks or arroyos, in others. The landscape presented a mixture of aridity and fertility dependent upon the season.

Scattered groves of trees grew on the coastal plains. The groves of alders or alisos, sycamores, and willows were concentrated along the river banks. If they survived the seasonal floods, these trees provided the Indians with firewood and frames for their huts. After winter rains, the open country west of the Los Angeles River blossomed with wild flowers and grasses. Wild mustard grew prolifically during the spring months, sometimes as tall as six feet. As late as 1910, the uncultivated tracts north of Dominguez hill became a sea of brilliant yellow color when the mustard was in bloom.

The course of the Los Angeles river meandered over the plain during a long period of years,

leaving numerous shallow ponds and marshes including the Dominguez Slough, and further to the south, the Bixby Slough, or Lake Goleta, the small lake west of the inner harbor of Los Angeles. All of these water and marsh areas were bordered with a luxuriant growth of tules and swamp grasses well into the modern day. The shifting of the river that resulted from various floods created problems for the early settlers such as the Dominguez family of Rancho San Pedro in obtaining clear patents of title for their land as the river served as the eastern boundary of the Rancho.

The Rancho San Pedro is used as a model for this unit because it was the first large land/grazing grant awarded by the Spanish Governor to a retired Spanish soldier in Southern California. It is representative of many grants that shaped the history of California. Rancho San Pedro is also noteworthy because it is the only such grant where the heirs of the original grant in 1784 still own and make a living from part of the land.

The vast Rancho San Pedro spread out across most of what is now the South Bay region, from the Los Angeles river on the east to the Pacific Ocean on the west. It encompassed what is now Carson, Torrance, Redondo Beach, parts of Compton, the cities of the Palos Verdes Peninsula, and the Los Angeles Harbor. Five salt ponds known as Las Salinas were located near the ocean shoreline in the present downtown section of the city of Redondo Beach. These extremely salty pools, only a few feet deep, covered almost 50 acres had provided the original American Indian inhabitants with salt. Las Salinas was the main source of salt for the Dominguez family during the greater part of the 19th century. The ponds of Las Salinas have long since dried up, been filled in with dirt and crushed rock, and are now occupied by retail stores and an electric power plant.

Another topographical feature of the Rancho San Pedro was the large amount of marsh and swamp land, found in the middle and northern portions of the original land grant. Not only was there the Dominguez Slough and adjacent stagnant water areas west and south of Dominguez hill, the northeastern part of the Rancho contained more than a square mile of muddy ponds and half-empty creeks. They added to the flood hazards of the rainy seasons and were odorous marshy pools during the rest of the year, an undesirable condition that lasted until the early 1900s.

Overlooking the scene was Dominguez Hill. With its mineral wealth then unknown, and long considered to be of no use except for cattle and sheep raising, this underrated topographical feature was to bring great wealth to the later generations of the Dominguez family.

Physical Characteristics of Place - Each place on earth has its own unique characteristics. The physical features make up its natural environment, and include landforms, bodies of water, climate, soils, natural vegetation, and animal life. Human characteristics of place are a result of human activity and building on the land, including shopping malls, bridges, streets, houses, and parks. In this unit we focus on physical features, that is, what the land and water was like here before humans came. What has changed? What has stayed the same?

Recommended Map Resources for the Unit:

It is suggested that the teacher collect a series of maps for students to use including a world map,

a United States map, a map of California, a variety of maps of the local region and the local community, and a map of the school and its neighborhood. It is helpful if students have access to a children's atlas (see Resources for the Sample Topic). A globe, wall maps, and laminated desk maps are also useful.

You can obtain map resources at some of the following locations:

- The local Chamber of Commerce, the Visitor's Bureau, gas stations, book stores, American Automobile Association (AAA), the front of the telephone directory, map stores, and your local *Thomas Bros. California Road Atlas and Driver's Guide*
- Local transit authorities usually provide maps of public transportation routes for bus, metro and trains. Often public libraries distribute such maps.
- The Federal Government has hundreds of maps available through the U.S. Government Printing Office (GPO). For a list of maps for sale, contact the GPO bookstore in your area or the Superintendent of Documents, GPO, Washington, D.C. 20402 (202/512-1800).
- Maps from the U.S. Geological Survey, the federal government's civilian mapmaking agency cover a wide range of areas around the world. Toll Free Number 1-800-USA-MAPS. Ask for the California Map List of topographic maps and aerial photographs of various areas in California. Cost of maps begin at \$4. Custom enlargements and color prints are available at additional cost. Free teacher packets include *Map Adventures* (K-3) and *What Do Maps Show?* (upper elementary and middle school). USGS may also be contacted by writing to Menlo Park-ESIC (Earth Science and Information Sales), Building 3, MS 532, Rm. 3128, 345 Middlefield Road, Menlo Park, CA 94025.
- Satellite photographs of the Los Angeles Region (#1241) and Southern California (#1396). Contact Spaceshots, Inc. at 1-800-272-2779.

Focus Questions:

1. What are the geographic features of a place?
2. Where is our community located?
3. What are the geographic features of the local region?
4. How have people changed or modified the physical environment of the local area?

Beginning the Topic

Focus Question: What are the geographical features of a place?

Exploration of Soils

To begin the topic and build a foundation for the study of geographical features, ask students to bring in a small bag of soil from their yard. Spread the soil out on a paper surface and have students explore its consistency by rubbing the soil between their forefinger and thumb. Have the students describe how their soil feels - smooth, rough, gritty, sandy. Teacher charts the responses on the chalkboard or chart paper.

Although many people think of soil as 'dirt,' soil is important as the home for plants to grow in. Good soil is a mixture of small particles (bits) of broken rocks, water, air, tiny living things (fungi and bacteria), and dead remains of living things (waste matter like old roots or dead bugs, called humus, which is dark-colored).

Introduce students to the three types of soil particle sizes, from largest to smallest: sand, silt and clay.

Sand feels rough and gritty, and is made up of very small pebbles or tiny gravel. Sand has so many air spaces between the particles that water goes right through, so sandy soil can dry out quickly.

Silt is medium size - smaller than sand, but bigger than clay.

Clay particles are so small that they pack together with hardly any spaces between them for air or water; clay soil can be hard for plant roots to push through. When you water clay soil with a hose, it pools on top. When clay soil dries out, it becomes very hard like a brick. This is what the early Indians and Spanish settlers built their houses from. It is called adobe.

The best soil for plant growth is a combination of all 3 - sand, silt, and clay - called loam, plus humus, the dark-colored, dead plant matter. Some students will have seen potting soil in house plants, others may have helped in gardening or farming.

Using magnifying glasses, have students examine the soil closely, and feel it again, to determine what is the major size of soil in their sample. (Most soils are a combination, e.g. soil with a gritty feel that also leaves dust on your fingers is a sandy clay.) Graph the results.

Ask students, "How do you think soil is formed?" (From erosional effects of water and other environmental agents, weathering or breakdown of rocks takes place over time.)

Explain that landforms are physical features on the earth that are shaped by the same forces that make soil: the hot sun, rain, wind, gravity, running water, freezing temperatures. We people shape the land, too, with bulldozers and cranes and canals. Before humans ever settled here, landforms were shaped by nature. The land is still changing today, but change most is too slow

for us to see (except for landslides, floods, earthquakes, or other such events seen on the T.V. news).

Ask students, “What are some examples of landforms and water features?” Brainstorm a list and add to it as the unit develops. Engage students in a discussion of landforms prominent in the local region. This list can serve as an assessment of what students know as you begin.

As an additional preassessment, ask students to sketch from memory a map of the local region. The students' maps may be limited at this time. Set these aside to compare with maps completed at the end of the unit.

Shared Reading of *The Armadillo From Amarillo*

To introduce the concept that every place on earth has its own physical characteristics, read aloud *The Armadillo From Amarillo* by Lynn Cherry. Ask students to predict what they think the story is about. (An armadillo leaves his home to find his place in the world.) Tell students to listen for why the armadillo leaves his home and to look at the illustrations for examples of landforms and water bodies (physical geographic features).

After the reading, students list the places that Sasparillo the Armadillo passed on his journey. Locate these places on a map of the United States.

Ask the students if this story is fact or fiction. Review the Author's Notes at the end of the book. Differentiate the geographic fact in the story from the fantasy.

During a second reading of the book, have students point out the following, specific physical features in the illustrations:

- soil and leaf litter (fallen leaves which decay to form humus)
- river or stream, lake or pond, beach (sandy edge of lake)
- meadow (or prairie/grasslands) of Texas bluebonnets (their state flower)
- woodlands, shrubland
- plains (flat area underlying San Antonio)
- hills
- canyon or valley (made by river)
- bluff, cliff, butte or tower made by weathering (breakdown of rock) and erosion (carrying rock materials away by water and wind)
- sedimentary layers of rock - explains to students that soft rocks weather and erode more easily, hard rocks remain as the landforms we see

In the view of the North American continent (or on a map of North America), point out: the coastline of the United States, shaped by the ocean waves, the Sierra Nevada and Rocky Mountains, the green plains of the Mississippi River Valley, the Great Lakes, the archipelago of Caribbean islands east of Cuba, the Gulf of California and Gulf of Mexico, the isthmus of Panama connecting with South America, Hudson Bay, the glacier or ice cap on Greenland, the Mississippi River and Rio Grande deltas, where the land juts out because of rivers depositing silt and other soils, the oceans, peninsulas of Florida and Baja California.

Geography Guessing Game

Pass out word cards on which selected geographic terms have been written from *Geography From A to Z* by Jack Knowlton (Refer to Appendix 1, Geography Terms for a sample.) Read and display pages containing geographic features relevant to your region. When a student hears the term written on his/her card, he/she places the card in a pocket chart or on the chalk tray.

After reading about the different terms, tape the geographic word cards on the backs of different students. Students walk around the room and try to guess what term is on their back by asking their classmates questions that require a “yes” or “no” answer. When the term is guessed, the students may place the card on the front of their shirts, and assist the remaining students by answering their questions. Have the book *Geography From A to Z* available for students to use for reference.

Landform Museum

Using the geographic feature terms from *Geography From A to Z*, have students create a Landform Museum for the classroom bulletin board. Students can collect illustrations for different landforms from magazine pictures, travel posters, postcards, family vacation photos, art prints or calendar prints of landscapes, old *National Geographic* magazines or other appropriate journals which can be cut up. Students select and label the pictures to make the “Landform Museum”. A world or U.S. map could be included with pins showing where the photos were taken, i.e. where the landforms are located.

Developing the Topic**Focus Question: Where is our community located?**

Provide students with copies of a world map, State of California map, map of the local region, and maps of your local community. Students can take time to study them closely (e.g. in pairs).

Have students locate:

- their school and home neighborhood
- their city on a county map
- the local region (county) on a California map
- California in relation to the United States, Canada and Mexico
- the United States in relation to the world

Display word cards with the following terms: city (or town), county, state, nation, continent, hemisphere, planet and galaxy. Help students rank the words according to size. To help students answer the question, “Where in the world am I?”, have them make a flip book which includes these categories (Appendix 2).

As an optional activity, refer Appendix 3 for a list of facts to locate about your county.

Focus Question: What geographical features are unique to the local region?**Neighborhood Walk**

Provide students with a cartographers notepad which can be made using notebook paper and a clipboard or piece of cardboard. Take a walk with the students around the school play area and surrounding neighborhood. On their cartographer's notepad, students list geographical features they see, such as hills, rivers, or mountains. Parks, meadows, or tree clusters should be noted as well. Students sketch physical features on their pad and write a short description of each entry. A Polaroid or disposable camera may be used to take photos. These may be added to the "Landform Museum".

Geographical Map (Note: *Create a map with features appropriate to your county.)

Using the Geographic Regions map of the local area (Refer to Appendices 4 and 5 for a sample), explain that the area's physical geography is made up of various natural regions such as: mountains, valleys, bays, rivers, a basin and a peninsula. Display the terms, discuss them, and located them on the map.

Physical Geography Mural of the Local Region

Have students work in cooperative groups to reconstruct a physical geography mural on which the outline of the local area has been drawn with a black marker. Make an overhead transparency of the outline of your region and project the outline on a large piece of butcher paper. (Refer to Appendix 5 for a sample.)

Give each group a packet containing art materials to make a representation of one of the natural regions to be placed onto the large mural map.

Example: River group uses blue yarn to make the local rivers.

When each group is ready, they glue their geographical feature onto the classroom mural map in the appropriate location.

Chime In, Chime Out Reading (Note: *Revise the Student Reader so it is appropriate for your county.)

Students read the student text aloud (Appendix 11) using "Chime In, Chime Out" reading. One student reads until the teacher places a hand on the shoulder of another student. That student immediately begins to read aloud. When the first student hears the other student "chime in", he/she "chimes out" and stops reading aloud. The process is repeated until the selection is read.

During the reading, students may refer to the large mural map of the local region. Make any necessary additions to the map.

Using Maps of the Local Region to Find Landforms

Using different maps of the local region, have students look for specific examples of physical features. Record these on a chart (Appendix 6). Have groups of students share what they found.

<u>Name of Landform</u>	<u>Examples from Local Map</u>
mountain	Mt. Wilson
valley	San Fernando Valley
hill	Baldwin Hills

Geographical and Human Features Maps of the Region

Provide each student with 2 blank maps of the local region with only the outer boundary drawn as a thick black line (See Appendix 5 for a sample). On one map, students draw in the important **geographical features**: for example, blue lines for rivers and streams, light brown or green hill-shaped semicircles for hills, upside-down V's for steeper mountains, etc. Each named feature should be labeled neatly on the map with small letters. (Use Appendix 5b and 5c for samples.)

Questions to guide this activity include:

- What different landforms can we identify in the local region?
- What is the highest elevation (altitude, or height above sea level) in the local region?
- What water features can be identified?

On the second copy of the map, students draw in the **human features** or development: major freeways and streets, bridges, railroads, communities, etc.

The outline maps should include:

- a title (such as "Physical Features of the Local Area" or "Human Features of the Local Area")
- a legend or key to identify the symbols used
- a compass rose showing the cardinal directions
- geographical and human features (Develop together a list of the required features. Refer to Appendix 5c for a sample.)

Terrain Model of the Local Region

Using the outline of the local region and the two previously made maps of the geographical and human features, students create a terrain model of the region using modeling clay or salt-flour clay. The clay is used to create the geographic features. Pipecleaners, macaroni pieces, beads, pebbles, etc. may be placed in the clay before it hardens to represent human features. Have students describe their terrain model explaining the geographic features unique to the region.

The terrain model should include:

- a title (e.g., "Geographical Features of Los Angeles Region")
- a legend or key to identify the symbols used for physical and human features
- labels for key geographic features (e.g. San Pedro Bay, San Gabriel Mountains)
- compass rose

Clay recipe for the terrain model: (per student)

2 cups flour 3/4 cup water 1 cup salt

Focus Question: How have people changed or modified the physical environment of our local region?

(Note: If desired, refer to the **Communityville** activity in Appendix 7 which provides practice analyzing how a “generic” community changes over time.)

Ask students, “What do you think the land in our area looked like long ago before it was settled?” What are some ways that people have changed the physical environment (e.g., built roads, bridges, a dam; bulldoze a hillside; construct flood control channels)?

How could we find out more information? Have students **interview** citizens who have lived locally for many years. Ask, “What changes have you seen people make to the physical environment? (Note: If students are not experienced with interview skills, model interview techniques for them.)

(Optional activity: Students may also want to ask what wildlife, including wild animals and vegetation, live in a natural, undomesticated state in our area. Have these changed over time? How have changes in the physical environment affected the wild life? To pursue this topic further, refer to *Where Once There Was a Wood* by Denise Fleming.)

Map Analysis (Note: *Locate an U.S. Geological Survey map for your area.)

Ask students to predict what the land looked like before so many people lived in the local area. Provide students with a copy of an U.S. Geologic Survey map from the late 1800’s. (Refer to Appendix 8 for an example from 1893). Explain that each dot on the map represents a dwelling that existed at the time. Identify items such as the railroad and any existing communities. List the physical features observed. Help students “read” the map. Color code the map by using questions such as:

- What geographic features are located on the map? Mark them green.
- What types of transportation are located on the map? Mark them brown.
- What communities are located on the map? Make a list. Which ones are familiar names?
- If each dot represents a dwelling, what can you infer about the number of people who lived here?

Next, have students examine a present day map of the local area. Analyze what physical characteristics have changed and which still remain. Compare and contrast the differences between the two maps on a T - chart.

<u>Local Area Long Ago</u>	<u>Local Area Now</u>
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Students speculate on how the land was used in the local region **before** and how it is used **now**.

How have geographical features contributed to our region’s historic development?

Ask students, “What are some of the attributes of the physical environment of our region which

makes it an attractive location, e.g. near the mountains or the beach, on a natural harbor.” Have students share any ways that they and their family enjoy the physical environment in the local area. Have them draw or bring in pictures showing ways people use the environment.

From what students know about the local geographic features, ask them to hypothesize why the early settlers might have come to our region. Is there anything in the physical environment that might have contributed to the region’s historic development?

Identify major areas of your physical environment that are used for jobs or as natural resources, e.g. fishing, farming, recreation. Are any products that come from these places in the region?

Culminating the Topic

Our Community Through Time History Book (Note: *Insert a map appropriate to your county.)

Have each student complete page 2 of his/her Community History Book Through Time to reflect the concepts learned from the unit of study. In the center of the page, students draw a map with features relevant to the unit. Each page should also include a symbolic border with pictures of artifacts drawn by the student to illustrate things they have learned during the unit. Refer to Appendix 9a for the format and 9b for a sample. At the end of Unit 7, when the pages for each unit have been completed, students will compile the pages in chronological order and design a cover for their booklet.

Each booklet page should include:

- map with at least 5 features appropriately placed and relevant to the topic
- a symbolic border with detailed illustrations that depict accurate factual information
- Period and Time identified

Note: The book *A River Ran Wild* by Lynne Cherry provides a good model for creating a symbolic border. The story deals with the environmental history of New England’s Nashua River and can be used as a contrast to the local region.

Map an Imaginary Place

Using *Geography From A to Z*, the glossary of Geography Terms (Appendix 1), and/or the classroom’s Landform Museum, review the geographic features studied. Each student selects at least ten geographic features and include these in a physical map of an imaginary place drawn on construction paper with crayons or colored pencils.

Imaginary Place Maps should include:

- map title with the name of the imaginary place
- at least 10 geographic features labeled with names
- a legend or key to identify symbols

- a compass rose
- a written description of where the imaginary land is located and information about its natural environment including the land forms, bodies of water, soil and how people have changed or modified the physical environment over time.

Geographical Features Postcard

Referring back to the book *The Armadillo From Amarillo*, have selected students read the postcards aloud that Sasparillo the Armadillo sent to Brillo, his armadillo friend in the Philadelphia Zoo. Students write a 4" x 6" postcard to Sasparillo telling him about what they have learned about where their own place in the world is, and describe the local geographical features using the appropriate terms. On the front side of the postcard, students draw a local landform or scene showing the geographical features of the region. (Refer to Appendix 10a for a Scoring Guide and 10b for a Rubric.)

The postcards include the following:

- the name of the community
- the name of the county and state the community is in
- description of the geographical and human features of the community

When students write their postcards they are to observe the following guidelines:

- use postcard form
- choose words carefully so that the reader understands what they mean
- use descriptive words
- check for spelling, punctuation, and paragraphs

Students follow the steps of the writing process by writing a first draft, reading their postcard to a partner for peer editing suggestions, revising for correctness, and creating the final post card.

Assessment

Assessment opportunities are embedded in the curriculum and occur throughout the unit. The focus questions provide a framework for the evaluation of the unit. Student work to be assessed includes:

- list physical features and geographic places found in *The Armadillo from Amarillo*
- locate and label pictures for the landform museum which consists of at least 15 types of geographical features
- construct a Flip Book to show the name of your city, county, state, nation, continent, hemisphere, planet, and solar system
- using a cartographer's notepad, sketch and write a description of local physical features
- using two outline maps, draw physical features of the Los Angeles region on one and human features on the other. Each map should include a title, legend or key to identify the symbols used, and a north arrow or compass rose showing the cardinal directions
- construct a terrain model of the local region including a title, a legend or key to identify the

- symbols used, and a north arrow or compass rose showing the cardinal directions
- compare an old map of the local area (U.S. Geological Survey map, if possible) with a modern day map and construct a T chart to compare and contrast things that have changed and those that have stayed the same
- hypothesize why some changes in the local area have occurred
- interview local citizens about changes in the community
- complete page 1 of the Local History booklet including a map with at least 5 features relevant to the topic and appropriately placed, with symbolic a border illustrated with detailed artifacts depicting accurate factual information, and the Period and Time accurately identified
- draw a map of an imaginary place including a title with the name of the imaginary place, at least 10 geographic features labeled with names, a legend or key to identify symbols, a north arrow or compass rose showing the cardinal directions, and a written description of where the imaginary land is located and information about its natural environment including the land forms, bodies of water and soil
- write a postcard to Sasparillo the Armadillo from Amarillo telling him about the local region. The front side of the card should include an illustration of geographical features of the local region. Proper postcard format should be utilized.

Extended and Correlated Activities

- Discuss the weather and climate of the local region. What are the temperature ranges? How much precipitation falls annually? What are the wind conditions? Have students keep a daily weather log of wind direction, temperature, precipitation, and general conditions over time to explain some of the factors that affect weather in the local area. Generally, local newspapers report regularly on local weather conditions. Ask students if these factors have any affect on the physical features in the environment? How? (e.g., landslides, Santa Ana winds).
- Students compose an acrostic poem using the name of your local region that uses words and phrases that describe the area's geographic physical features.
- After viewing art prints of landscapes, students create their own crayon and watercolor compositions.
- View the videotape "Visions of California" which tells the story of California Impressionist landscape painters. Using the artist's style, create paintings depicting the natural landscape of the local region.
- Create an adaptation of *Geography From A to Z* by Jack Knowlton using the geographical features of the area.
- Interpret aerial photographs to locate and identify physical features.
- Study a topographical map of your local region and a map of California or another region. Record similarities and differences on a Venn diagram.

- After a walking field trip of the surrounding area, make a class scrapbook of illustrations and photographs complete with descriptive captions.
- Describe and explain how the local environment changes as seasons change.
- To provide a life science linkage, prepare soil and grow plants in the classroom or on the school grounds.
- Read a narrative story and create a “sketch map” to illustrate the narrative (e.g., after reading the Little House series by Laura Ingalls Wilder, make a map of where the Ingalls family lived.
- Have students locate the highest landform in the local region and the elevation of your city. Challenge students to find the highest and lowest elevations in California, the United States, and the world.
- Using the computer simulation Cross Country California, become a truck driver who picks up and delivers crops to different regions in California. The natural landscape, famous landmarks, and major cities can be viewed from the window of the cab.
- Read *Sierra* and/or *Mojave*. These books by Diane Siebert describe the physical characteristics of two geographic regions in California. The books use beautiful prose to describe the geography of each area. Using the format of the text, help students create a class book describing the local region.

First, read *Sierra* or *Mojave* without telling the title of the book or showing any of the pictures, including the cover. If desired, have the students “sketch” any of the landforms or physical features they hear mentioned in the text. Ask students to describe the physical landscape and share any of their drawings. Can you tell the location of the story? Point out the Sierra Nevadas or the Mojave Desert on a California map.

Retype the text of the story or duplicate the written pages of the book. Work together to create a choral reading so that each student has a part. If desired, have students illustrate their part of the text, or show the original illustrations. Color transparencies on the overhead projector are especially effective.

Now that students are familiar with the format and rhythm of the Siebert text, determine what physical characteristics from the local region will be included in a new text. Divide the students into groups and have each group create prose and illustrations for different physical features. Use colored chalk, craypas, or colored pencils. Assemble the pages into a book.

Resources for the Sample Topic: (Items marked with ** are strongly recommended and with an * are highly recommended.)

* Beck, Warren A. and Ynez D. Haase. *Historical Atlas of California*. Norman, Okla.: University of Oklahoma Press, 1974. ISBN 0-8061-1212-3. With its great diversity of landforms, California has an unparalleled range of climate, soils, and natural vegetation. In this excellent teacher resource book, an historian and a cartographer have collaborated to record various aspects of the Golden State's geography and events in history. The maps cover all of the physical characteristics

of the state and also have substantial detail on the flora and fauna. All phases of history, from the Indian era down to the present, are included.

Benson, Laura Lee. *This is Our Earth*. Watertown, Mass.: Charlesbridge Publishing, 1994. ISBN 0-88106-838-1 Softcover. This picture book of verse set to music (full score appears on the last page) makes nature's majestic beauty accessible to young children. The illustrations are useful for identifying physical features. At the top of each page, the book includes text appropriate for emergent readers. More detailed information for fluent readers is provided at the bottom of the text.

** Cherry, Lynne. *The Armadillo From Amarillo*. San Diego, Calif.: A Gulliver Green Book by Harcourt Brace & Company, 1994. ISBN 0-15-200359-2. When an armadillo named Sasparillo wants to know where on earth he is, he leaves his home in San Antonio and travels north through the canyons and prairies of Texas. In Amarillo he meets an eagle and, with her help, finds the answer to his question.

Cherry, Lynne. *A River Ran Wild*. San Diego, Calif.: Gulliver Green/Harcourt Brace & Co., 1992. ISBN 0-15-200542-0. An environmental history of New England's Nashua River from its discovery by Indians through the polluting years of the Industrial Revolution to the ambitious cleanup that revitalized the river.

* Conserva, Henry T. *Illustrated Dictionary of Physical Geography*. Marceline, Missouri: Walsworth Publishing Company, 1991. ISBN 0-940213-72-9. Each term is concisely defined and accompanied by a colorful illustration. Includes list of examples of some landforms from around the world. This book is a great reference book for the classroom.

Cross Country California. Burnaby, British Columbia: Didatech Software Ltd. This computer program will provide students with hours of entertainment as they drive their truck throughout California to pick up and deliver crops. The best part is, they don't even realize how much they are learning about the geography of the state.

Destination: Neighborhood. Redmond, Washington: Edmark, 1995. Create interactive stories, poems, and journals using this computer program. Part of the IMAGINATION EXPRESS series, students can set the background scenery and choose photo-realistic people, pets and more from the Sticker Picker as they write about actual or imagined adventures in their neighborhood. Sound tools can be used to add music, sound effects, dialogue and narration to each scene to bring stories to life. Text tools can be used to write and edit text and stickers such as a basketball player or skateboarder can be animated with the click of a button.

Exploring Where and Why: People and Places Everywhere. Chicago: Nystrom, 1998. Students explore concepts such as size, location, climate, history, and common needs and characteristics of a variety of communities. This complete geography teaching kit promotes active learning through activity based lessons. The kit includes laminated desk maps, wall maps, globes, atlases, a CD-ROM, and a complete teacher's guide including lessons and suggested activities. Components may be purchased separately.

Fields of Gold. Sacramento, Calif.: Grant & Co., 1990. Videocassette. *Fields of Gold* focuses on California history and geography while exploring the state's agricultural industry. The video

gives good information on physical characteristics that make California the nation's leading agricultural state.

*Fleming, Denise. *Where Once There Was a Wood*. New York: Henry Holt and Company, 1996. ISBN 0-8050-3761-6. This book examines the many forms of wildlife that can be displaced if their environment is destroyed by development. It includes a discussion of how communities and schools can provide spaces for them to live and information on the National Wildlife Federations Backyard Habitat Program.

Geography For Life: National Geography Standards. Washington, D.C.: American Geographical Society, 1994. ISBN 0-7922-2775-1. The National Geography Standards provide excellent teacher background on the teaching of geography. Refer specifically to the Kindergarten to Grade 4 Standards.

Hartman, Gail. *As the Crow Flies. A First book of Maps*. Illustrated by Harvey Stevenson. New York: Bradbury Press, 1994. ISBN 0-689-71762-8 Softcover. A look at different geographical areas from the perspective of an eagle, rabbit, crow, horse, and gull.

Hartman, Gail. *As the Roadrunner Runs: A First book of Maps*. Illustrated by Cathy Bobak. New York: Bradbury Press, 1994. ISBN 0-689-71762-8. A look at different geographical areas from the perspective of a lizard, jackrabbit, roadrunner, mule, and a deer. A companion book (see above) is used in the unit. The same activity could be used with this book which features different landforms.

* *Helping Your Child Learn Geography*. Washington, D.C. U.S. Department of Education Office of Educational Research and Improvement, 1990. 1S 90-910. Send your name and only 50 cents to "Geography, Consumer Information Center, Pueblo, CO 81009" to get this best bargain resource. Designed for parents of young children, the book includes numerous activities related to each of the five themes of geography.

Hirst, Robin, and Sally Hirst. *My Place in Space*. New York: Orchard Books, 1988. ISBN 0-531-07030-1 Softcover. Selected as a Notable Children's Trade Book in the Field of Social Studies, a young boy named Henry tells the bus driver exactly where he lives, positioning himself precisely in the universe. The book is a good complement to the flip book activity described in this unit.

Hornbeck, David. *California Patterns: A Geographical and Historical Atlas*. Mountainview, Calif.: Mayfield Publishing Company, 1983. ISBN 0-87484-583-1. This teacher resource depicts California's contemporary landscape through a historical geography perspective. The book traces the changing patterns of California's human and physical landscape from geologic formation to the present day. The author examines natural vegetation, weather and climate, early settlements, immigration, urban expansion, agricultural patterns, water systems, and economic patterns and trade.

Jeunesse, Gallimard, Claude Delafosse, and Donald Grant. *Atlas of Countries: A First Discovery Book*. New York: Cartwheel Books/Scholastic, 1994. ISBN 0-590-58282-8. This atlas uses simplified maps, bright illustrations, and basic information to introduce young children

to the diversity of countries all over the world.

** Knowlton, Jack. *Geography From A To Z: A Picture Glossary*. Illustrated by Harriet Barton. New York: HarperCollins Publisher, 1988. ISBN 0-06-446099-1 Softcover. The sixty-three entries describe in clear, concise terms the earth's features and physical geography, from the highest mountain peak to the lowest desert. Each entry is beautiful illustrated in full-color.

Kurjian, Judi. *In My Own Backyard*. Illustrated by David R. Wagner. Watertown, Mass.: Charlesbridge Publishers, 1993. ISBN 088106-442-4. A young child looks out a bedroom window and sees the backyard magically transformed to what it would have looked like during various historical and geological periods through dinosaurs and protozoic times.

Looking at Our Communities. Austin, Texas: Steck-Vaughn, 1995. This kit focuses on rural, urban, and suburban communities--what they are, how they are alike and different, and how people live in them. Through interactive lessons, students explore pioneer farms, modern cities, new suburban centers, and environmental issues. There are 26 lessons divided into six units. The first unit answers the question, What is a community? Unit 2 explores communities and their environment, and includes lessons on geography and transportation. Units 3, 4, and 5 focus on rural, urban, and suburban communities. The last unit includes rules and laws, government, and the world community. The kit includes a magnetic activity board for students to use in organizing visuals.

Mindscape. *U.S. Atlas and Almanac*. Novato, CA: Mindscape, 1996. CD-ROM. Students can call up maps and facts on specific states, counties or cities or create a series of U.S. or regional statistical maps. They can customize maps to show things such as locations of special interest. Although the program is geared toward students in Grades 4 to 10, the 3-D maps, high resolution satellite photography, and zoomable city and region maps make this a useful resource.

* *Neighborhood Map Machine*. Watertown, Mass.: Tom Snyder Productions, 1997. Using this computer program, students can construct maps; explore ready-made maps; make a mystery map for others to follow; or, make a slide show of maps to show changes over time. There are numerous ways to customize maps to fit a particular neighborhood or town. This program provides a delightful way to unlock the secrets of maps and mapmaking for young cartographers.

Nystrom. *Nystrom Desk Atlas*. Chicago: Nystrom, 1996. Extensive coverage of the world is included in this atlas for upper elementary aged students. There is a mix of maps, graphs, tables, and photos. For a more Grade 3-specific atlas, refer to *Map Champ Atlas*, listed below.

Nystrom. *Map Champ Atlas*. Chicago: Nystrom, 1998. ISBN 0-7825-0637-2. This student atlas is intended for students in Grade 3. U.S., world, and continent maps include age-appropriate detail. An illustrated glossary and index are included along with simple thematic maps. The Map Champ Atlas Program included a binder with student activities plus 30 copies of the atlas.

Nystrom. *Nystronaut*. Chicago: Nystrom, 1997. ISBN 0-7825-0662-3. This student atlas is intended for Grade 2 except that there are bird's-eye maps which focus on concepts related to the community. The Nystronaut Atlas Program includes a binder with student activities plus 30

copies of the atlas and laminated desk maps, six globes, and two wall charts. See *Map Champ* (listed above) for the Grade 3 atlas.

Our Earth. Washington, D.C.: National Geographic Society, 1992. This CD-ROM is part of National Geographic's "Wonder of Learning" series. It includes 4 color booklets that accompany the CD-ROM, a poster (18" X 24") and a printed user's guide. More than 100 color photographs are used to help teach basic reading concepts; improve reading comprehension and language skills; reinforce vocabulary and grammar skills in English and Spanish. It describes the elements that life depends on, what air can do, why it rains, and the basic skills of using map. The reading level is a little easy for third grade.

Rand McNally. *Classroom Atlas*. Skokie, Illinois: Rand McNally Educational Publishing, 1996. ISBN 528-17729-X. This simplified atlas includes physical, political and thematic maps and information to help students use an atlas. An activity program that contains cross-curricular materials that promote critical thinking skills is also available.

Rand McNally. *Children's Atlas of the United States*. Skokie, Illinois: Rand McNally Educational Publishing, 1994. CD-ROM. This technology program includes teaching suggestions for an integrated curriculum focusing on geography, history and language arts. Students work with graphs, charts, animations, and written text for each state and the District of Columbia.

Rand McNally. *StreetFinder*. Skokie, Illinois: Rand McNally Educational Publishing, 1996. CD-ROM. This street atlas features more than 6 million miles of roads, 28 million street segments, and thousands of museums, historical sites and interesting places in the contiguous 48 states and Hawaii. Print detailed StreetPack maps or customize maps with the drawing tools, text, and stamps.

Reinke, Diane Wilcox. *The Community Publishing Company-Exploring the Community Marketplace*. New York: Joint Council on Economic Education, 1989. A teachers resource manual filled with lessons and activities students can do in studying about communities.

* Siebert, Diane. *Mojave*. Paintings by Wendell Minor. New York: HarperCollins, 1988. ISBN 0-690-04567-0. Prose is accompanied by engaging paintings to tell the story of the vast and ever-changing Mojave desert. The landscape and wildlife are described in poetic detail. The text can be used as a springboard to create a landscape book for the local region (refer to the Extended Activities section of the unit). The text is difficult for third graders.

* Siebert, Diane. *Sierra*. Paintings by Wendell Minor. New York: HarperCollins, 1991. ISBN 0-06-021639-5. Prose is accompanied by engaging paintings to tell the story of the majestic Sierra Nevadas. The landscape and wildlife are described in poetic detail. The text can be used as a springboard to create a landscape book for the local region (Refer to the Extended Activities section of the unit). The text is difficult for third graders.

SimTown. Walnut Creek, Calif.: Maxis, 1994. Maxis has cornered the market on simulating

cities. This computer program is an easier version of the popular SimCity program. It is challenging yet techie first graders will charge ahead fearlessly creating their own towns. The latest in the series, SimPark, is geared toward children from ages 8 and up.

* Spaceshots, Inc. Satellite Maps. Acton, Calif.: Spaceshots, Inc., n.d. Large color satellite maps that are very useful to identify geographic features in different regions of California. Available maps are *The Los Angeles Basin*. (#1241), *Monterey Bay* (#1246), *San Francisco* (#1382), *San Diego* (# 1381), and *Southern California* (#1396). Check local map stores for other satellite photographs that may be available.

Sweeney, Joan. *Me On the Map*. Illustrated by Annette Cable. New York: Crown Publishers, 1996. ISBN 0-517-70095-6. A child describes how her room, her house, her town, her state, and her country become part of a map of her world. This book includes concepts about the world around "Me" and how it relates to "Me".

Taylor, Barbara. *Maps and Mapping*. New York: Kingfisher Books, 1993. ISBN 1-85697-936-9 (paperback). *Maps and Mapping* explains what maps are and why they are used. It introduces symbols found on maps and describes how cartographers map the world.

Visual and Performing Arts Resources

Guthrie, Woody. *This Land is Your Land*. Paintings by Kathy Jakobsen. Boston: Little, Brown and Company, 1998. ISBN0-316-39215-4. Since Woody Guthrie wrote "This Land is Your Land" in the 1940s, it has become one of the most familiar folk songs in America. Kathy Jakobsen's detailed paintings illustrate so many of the geographic terms used in Unit 1 that this book could be used as a key resource for the unit.

Highland, Monica. *Greetings from Southern California*. Portland, Oregon: Graphic Arts Center Publishing Co., 1988. ISBN 0-932575-71-4. Using old post cards of people and scenes, this picture book illustrates life in Southern California at the turn of the last century. *Greetings from Southern California* can be used as a model for a student scavenger hunt searching for old post cards of their local community.

Impressions of California - Early Currents in Art 1850-1930. Irvine, Calif.: Irvine Art Museum, 1996. ISBN 0-9635-468-0. This visual feast chronicles the love affair between California impressionist artists and the natural landscape of the Golden State. The accompanying video is described below.

Impressions of California. Huntington Beach, CA: KOCE-TV, 1996. This landmark public television series examines and documents eight decades of early California art from statehood to the beginning of the Depression in 1930. The four part series includes photographs of more than 300 works of art along with interviews of artists. Section one pertains to Northern California and section two is titled "The Rise of Impressionism in Southern California". Section 3 includes "Early Art in Laguna Beach and San Diego. Each program is 28 minutes in length. The video is accompanied with an art catalog which is described below. Write to KOCE on school letterhead

to request a copy.

Over California. New York: Ambrose Video Publishing, 1994. This video tape provides an exhilarating journey above the landscape of California. Select the section of the tape which features your region or use each section to identify different types of geographic features. Photographed entirely from the air over the course of a year, high altitude images reveal the special beauty of the mountains, desert, vineyards, coastline, and cities that are California.

* *Visions of California - The Story of California Scene Painting 1925-1950*. Huntington Beach, CA: KOCE-TV, 1994. Working with scores of collectors and dozens of institutions and museums nationwide, producer Paul Bockhorst has created a three part video series that features almost 150 works of California art. Historical photographs and interviews with artists help to bring landscape painting alive. Overall running time is 84 minutes for the three segments. Write to KOCE on school letterhead to request a copy.

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UNABLE TO INCLUDE THE APPENDICES IN THIS
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